

Claims

1. Conveyor belt system (1) for transporting products through a bath of liquid, such as heated cooking oil in an oven (2), comprising a feed belt (3), accommodated in a base frame (4), and a top belt (5), located above the feed belt (3) and accommodated in an auxiliary frame (6), for transporting the products through the bath of liquid between the top belt (5) and the feed belt (3), as well an adjustable support mechanism (14, 15) for adjusting the distance between the feed belt (3) and top belt (5), which support mechanism (14, 15) comprises further adjustable supports (14, 15) by means of which the auxiliary frame (6) is supported on the base frame (4), characterised in that all supports (14, 15) are mechanically coupled to one another by coupling means (23) for common adjustment thereof.

2. Conveyor belt system according to Claim 1, wherein the coupling means (23) are connected to one and only one central control element (24).

3. Conveyor belt system according to Claim 1 or 2, wherein each support comprises a ramp mechanism, which ramp mechanisms (14, 15) are connected to one another by means of a pull element (25) to provide relative movements in each ramp mechanism, which movements are associated with adjustment movements transverse to the base frame (4) and auxiliary frame (6).

4. Conveyor belt system according to Claim 3, wherein each ramp mechanism (14, 15) comprises a ramp support (16) and a block (18) which can be moved with respect to one another, one of which is fixed with respect to one of the frames (4, 6) and the other is movably connected to a frame (4, 6) in order to provide adjustment movements.

5. Conveyor belt system according to Claim 4, wherein at least two ramp mechanisms (14, 15) are provided on each longitudinal side of the frames (4, 6), such that the slope of the ramp mechanisms (14, 15) on one longitudinal side is opposite to the slope of the ramp mechanisms (14, 15) on the other longitudinal side, which ramp mechanisms (14, 15) are connected to one another by a pull element (23) that changes direction close to at least one transverse side of the frames (4, 6).

6. Conveyor belt system according to Claim 5, wherein there is a winder (24) close to the other transverse side of the frames, and the pull element is a flexible cable (23) or the like, the ends of which are each wound in the opposite direction on the winder (24).

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7. Conveyor belt system according to Claim 4, 5 or 6, wherein each ramp support (16) is fixed to the base frame (4) and each block (18) is movably attached to the auxiliary frame (6).

10 8. Conveyor belt system according to one of Claims 3 - 7, wherein the base frame (4) and the auxiliary frame (6) each consist of a main frame component (7, 10) and a lead-in frame component (8, 11) hingeably connected thereto, the hinge pins of which are parallel to one another some distance apart, which lead-in frame components (8, 11) are mutually supported on the two longitudinal sides by at least two ramp mechanisms (15), which ramp
15 mechanisms are rigidly joined to one of the lead-in frame components (8, 11) and can be moved with respect to the other lead-in frame component (8, 11).

9. Conveyor belt system according to Claim 8, wherein each ramp support (16) of the lead-in frame components (11) is fixed to, in each case, one of said components by means
20 of a bearer (28) which can be moved transversely with respect to said lead-in frame component (11) and bears on the other lead-in frame component (8) and the associated block (18) is movably attached to that lead-in frame component (11) to which the bearer (28) is also attached.

25 10. Conveyor belt system according to Claims 6, 7, 8 and 9, wherein the winder (24) is accommodated on one of the main frame components (10), to which main frame component (10) the blocks (18) are movably attached and the bearers (28) are attached to the lead-in frame component (11) associated with said main frame component (10), which lead-in frame component (11) has deflection pulleys (32) around which the cable (23)
30 changes direction.

11. Oven (2) comprising a conveyor belt system (1) according to one of the preceding claims, a tank (34) to hold a quantity of cooking oil and a cover (35) for covering the tank,

the conveyor belt system (1) being located in said tank (34).

12. Oven (2) according to Claim 11, wherein the drive for the coupling means (23) is located outside the tank or cover.

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13. Oven (2) according to Claim 11 or 12, wherein a lifting device (23) is provided for lifting the cover (35) and the conveyor belt system (1) relative to the tank (34).

10 14. Method for operating an oven (2) according to Claim 13 for adjustment of the distance between the feed belt (3) and the top belt (5), comprising the following steps:

- increasing the distance between the feed belt (3) and the top belt (5) by means of the lifting device (33),
- adjusting the supports (14, 15) in order to obtain a new support position related to the new, desired distance between the feed belt (3) and the top belt (5),
- 15 - transferring the support of the top belt (5) on the feed belt (3) to the supports (14, 15).

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